

Amendment to the drawings

The attached sheets of drawings include amended Fig.4 and Fig.5. Fig. 6 has been cancelled.

Attachment: Two amended sheets of drawings.

REMARKS

Claims 2-3, 6-8, 10, 15-18, 20-31, 34 and 37 are cancelled, claims 1, 4-5, 9, 11-14, 19, 32-33 and 35-36 are pending in the present application and claims 1, 14 and 32 have been amended to further clarify the invention.

Office Action of September 28, 2009

Applicant has carefully reviewed and considered the Office Action of November 12, 2009. Applicant hereby requests entry of this Response and further consideration of the present application in view of the following remarks.

In the Office Action, amendments filed on 4/22/08, 09/30/08, 12/29/08, and 7/7/09 were objected to under 35 U.S.C. 132(a) because new matters are introduced into the disclosure.

Claims 1,4-5, 9, 11-14, 16-17, 19, 32-33, and 35-37 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

The drawings were objected to under 37 CFR 1.83(a).

Claims 1, 4-5, 9, 11-14, 16-17, 19, and 35-36 were rejected under 35 U.S.C. §102(b) as being anticipated by Paterson et al. (U.S. 6412042).

Claims 33 and 37 were rejected under 35 U.S.C. §103(a) as being unpatentable over Paterson and further in view of Cheston et al. (U.S. 6,617,494).

Claim 32 was rejected under 35 U.S.C. §103(a) as being unpatentable over Paterson and further in view of Assaf (U.S. 5,966,732).

Applicant respectfully traverses these grounds of rejection and requests reconsideration thereof.

Objection under 35 U.S.C. 132(a)

In the summary of invention, it discloses that when a disk drive device has received a command, the command may enable the disk drive device to read data once, and then write it twice. Further, in one embodiment of the present invention, a dual write function may be implemented as a dual write command in firmware, software and/ or hardware.[page 6, lines 5-6] From which, it teaches that the dual write

command may be implemented in firmware. Further, when the disk drive device has received the dual write command, the operation of dual writing is performed by the disk drive. Wherein, the dual writing in this present invention is defined as to write data or files in both of the reserve area and the user portion of the drive.

In Fig.2 and the related description thereof, it is mentioned that if the dual write flag or bit is set, the data is written in the reserve area 260 of the drive and the user portion 270 of the drive. Further, recall that the dual writing can be implemented in firmware[page 6, lines 5-6]. Thus we may conclude that the specification has taught the combination of the firmware command with the dual write flag or bit. Moreover, Fig.2 has shown the combination of a request to copy data (at 210) with dual write flag or bit (at 220) in the flow chart. Above all, when the disk drive device has received a request to write data or files and the processor performs the firmware command, then the processor receives the firmware command to write data or files in both of the reserve area and the user portion of drive. In conclusion, the specification has taught the combination of an embodiment directed to a request to copy data with the other embodiment directed to firmware command and the combination of firmware command with dual write flag or bit.

Rejection under 35 U.S.C 112

In order to overcome the rejection under 35 U.S.C 112, applicant has amended the specifications according to claim 1 and 14. Applicant submits that no matter is introduced in the specifications. Therefore, the claims are fully supported by the amended specification.

Objection under 37 CFR 1.83(a)

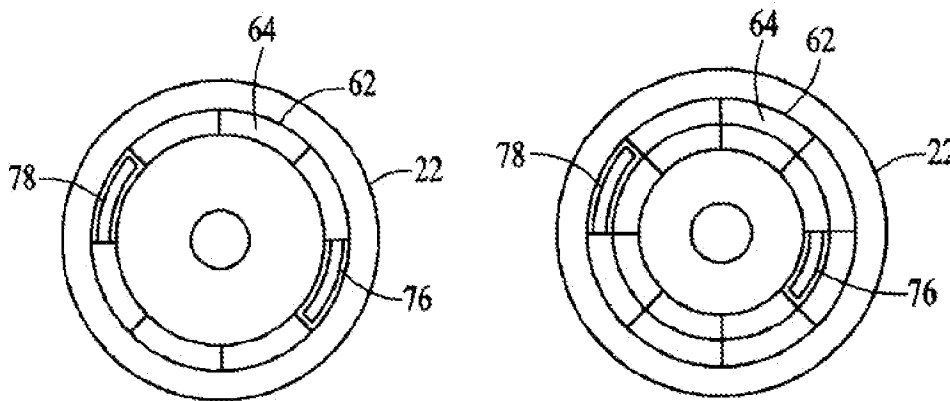
Applicant has amended the drawings, and the drawings of Fig.4 and Fig.5 have been showed every feature of the invention specified in the claim.

Rejection Under 35 U.S.C. §102(b) and 35 U.S.C. §103(a)

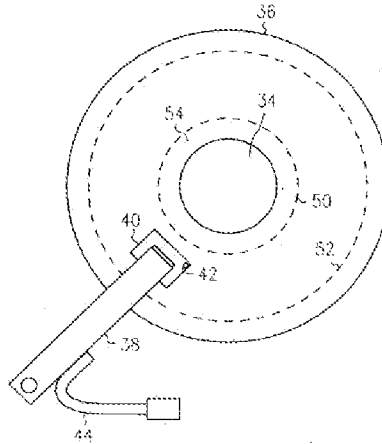
Claim 1

An amendment has been made to claim 1 to recite that “a first one of two locations is within a reserve area of the storage device and a second one of the two locations is outside of the reserve area of the storage” and “the reserve area is a protected area that is protected from access by a user or an operation system”. When the data is stored within a reserve area, the data will not be accessed by the user or the operation system. From which, the data may be used to restore the computer system to a state equivalent to when it left the manufacturer.

As Examiner stated in the Office Action, Paterson et al. has disclosed writing data segment from data buffer to one disk sector in step 146 and writing copy of data segment from data buffer to another sector in step 150. Paterson et al. only discloses to write data in disk sectors 76, 78. The disk sector 76, 78 may be located in same track or in different track, as showed in follows.



In this present invention, the data is not limited in the disk sectors. To the contrary, the first one of the two locations is within a reserve area 54 of the storage device, and the reserve area 54 may be located inside the inner track 50. The second one of the two locations is outside of reserve area 54 of storage device, and the second one of the two locations may be located between the inner track 50 and the outer track 52.



Even if Paterson et al. has disclosed the data is stored in different disk sectors, Paterson et al. does not specifically disclose to store the data within the reserve area of the storage device that is not accessed by the user or the operation system. Additionally, Examiner also stated that Paterson does not explicitly show the reserve area is not accessible using the operation system in the Office Action. By storing the data within a reserved area of the storage device, this present invention further has the effect of “using the reserve data to restore the computer system to a state equivalent.” If the data is not stored within the reserve area, the data may be rewritten or messed up by the user or operation system. Then the computer system can not be restored to a state equivalent to when it left the manufacturer. Paterson et al. is silent about such feature.

Despite the fact that Cheston has indicated that “the second partition is not accessible to the end user. This may be achieved by using a special type of disk partition which is invisible to the operating system”, Cheston does not have the feature of “read data once, then write data twice, into different locations on the drive.” It has no motivation to combine based on impermissible hindsight.

The amended claim 1 recites that a first one of two locations is within a reserve area of the storage device and a second one of the two locations is outside of the reserve area of the storage and “the reserve area is a protected area that is protected from access by a user or an operation system”. **The feature is not disclosed in cited reference of Paterson et al..** Furthermore, Cheston does not have the feature of “read data once, then write data twice, into different locations on the drive.” It has no

motivation to combine based on impermissible hindsight. Therefore, the amended claim 1 is sufficient to render the present invention patentable over the cited references.

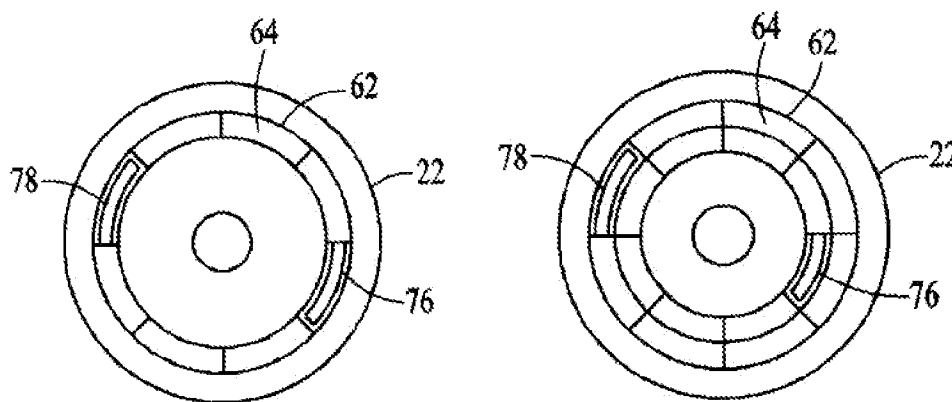
Claims 4, 5, 9, 11, 12, 13, 32, 33, 35 and 36

Claims 4, 5, 9, 11, 12, 13, 32, 33, 35, 36 and 37 depend from the amended claim 1, whereby should be patentable over the cited references for the same reasons stated above. Accordingly, favorable reconsideration and withdrawal of the cited rejection under 35 U.S.C. § 102 are respectfully requested.

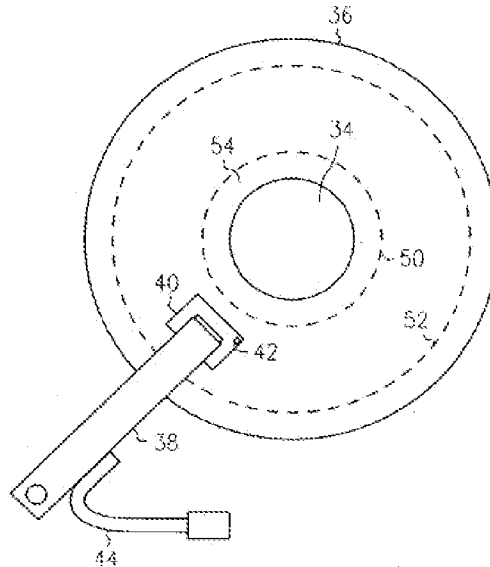
Claim 14

An amendment has been made to claim 14 to recite that “a first one of two locations is within a reserve area of the storage device and a second one of the two locations is outside of the reserve area of the storage.” and “the reserve area is a protected area that is protected from access by a user or an operation system”. When the data is stored within a reserve area, the data will not be accessed by the user or operation system. From which, the data may be used to restore the computer system to a state equivalent to when it left the manufacturer.

As Examiner stated in the Office Action, Paterson et al. has disclosed writing data segment from data buffer to one disk sector in step 146 and writing copy of data segment from data buffer to another sector in step 150. Paterson et al. only discloses to write data in disk sectors 76, 78. The disk sector 76, 78 may be located in same track or in different track, as showed in follows.



In this present invention, the data is not limited in the disk sectors. To the contrary, the first one of the two locations is within a reserve area 54 of the storage device, and the reserve area 54 may be located inside the inner track 50. The second one of the two locations is outside of reserve area 54 of storage device, and the second one of the two locations may be located between the inner track 50 and the outer track 52.



Even if Paterson et al. has disclosed the data is stored in different disk sectors, but Paterson et al. does not specifically disclose to store the data within the reserve area of the storage device. Additionally, Examiner also stated that Paterson does not explicitly show the reserve area is not accessible using the operation system in the Office Action. By storing the data within a reserved area of the storage device, this present invention further has the effect of “using the reserve data to restore the computer system to a state equivalent.” If the data is not stored within the reserve area, the data may be rewritten or messed up by the user or operation system. Then the computer system can not be restored to a state equivalent to when it left the manufacturer. Paterson et al. is silent about such feature.

Despite the fact that Cheston has indicated that “the second partition is not accessible to the end user. This may be achieved by using a special type of disk partition which is invisible to the operating system”, Cheston does not have the feature

of ” read data once, then write data twice, into different locations on the drive. It is not easy to combine the Paterson’s invention with the Cheston’s invention to bring out this present invention. It has no motivation to combine based on impermissible hindsight.

The amended claim 14 recites that a first one of two locations is within a reserve area of the storage device and a second one of the two locations is outside of the reserve area of the storage” and “the reserve area is a protected area that is protected from access by a user or an operation system”. **The feature is not disclosed in cited reference of Paterson et al..** Furthermore, Cheston does not have the feature of ” read data once, then write data twice, into different locations on the drive.” It has no motivation to combine based on impermissible hindsight. Therefore, the amended claim 14 is sufficient to render the present invention patentable over the cited references.

Claims 17 and 19

Claims 17 and 19 depend from the amended claim 14, whereby should be patentable over the cited references for the same reasons stated above. Accordingly, favorable reconsideration and withdrawal of the cited rejection under 35 U.S.C. § 102 are respectfully requested.

Conclusion

In view of the foregoing remarks, Applicant respectfully submits that Claims 1, 4, 5, 9, 11, 12, 13, 14, 19, 32, 33, 35 and 36 are in condition for allowance and entry of the present amendment and notification to that effect is earnestly requested. If necessary, the Examiner is invited to telephone Applicant’s attorney (770-246-2599) to facilitate prosecution of this application.

No additional fees are believed due. However, the Commissioner is hereby authorized to charge any additional fees that may be required, including any necessary extensions of time, which are hereby requested to Deposit Account No. 50-4290.

Respectfully submitted,
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By his Representatives,

Dated: February 11, 2010

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